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10/573,026

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EXAMINER

UHLIR, CHRISTOPHER J

ART UNIT

PAPER NUMBER

2837

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/573,026	<b>Applicant(s)</b> ARZABALA, ROBERTO RIBER	
	<b>Examiner</b> CHRISTOPHER UHLIR	<b>Art Unit</b> 2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

Receipt is acknowledged of applicant's amendment filed April 3, 2009. Claims 1-13 are pending and an action on the merits is as follows.

Applicant's arguments, see the last line on page 3 of the response through line 8 on page 4, filed April 3, 2009, with respect to the rejections of claims 1-13 under 35 U.S.C. 103 (a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of new ground(s) of rejection.

### ***Specification***

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### ***Claim Objections***

2. Claims 4, 7, and 8 are objected to because of the following informalities:

**Claim 4** includes the phrase "wherein the area of the body forming the acoustic chamber". However there is a lack of antecedent basis for 'the area' and 'the body'. This phrase should be changed to state "wherein an area of a body forming the acoustic chamber".

**Claims 7 and 8** include the phrase “wherein the opening of the partition”.

However there is a lack of antecedent basis for ‘the opening’. This phrase should be changed to state “wherein an opening of the partition”.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 2 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

**Claims 2 and 8** include limitations drawn to “the vibrating member”. However there is a lack of antecedent basis for the vibrating member. It is unclear if applicant intends the vibrating member to reference the vibrating strip, or introduce a new element into the claims. For examining purposes, as best understood by examiner, “the vibrating member” is interpreted as meaning “the vibrating strip”.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-4, 7, 8, and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over LeBlanc et al. (US 4,970,983) in view of György; László (US 5,460,116).

**Regarding claim 1**, LeBlanc et al. discloses a horn shown in FIG. 1 to have a coaxial pressure chamber (62) and acoustic chamber (sound generating chamber 66). A vibrating strip (diaphragm 54) is disclosed to be metal such as stainless steel (column 2 lines 58-59) and shown in FIG. 1 to be arranged between the pressure chamber (62) and acoustic chamber (66). This figure further shows said vibrating strip (54) to be coaxial with said acoustic chamber (66) and fixed at its periphery to a free edge of a partition that forms the pressure chamber (62) (column 2 line 65 through column 3 line 2). This reference fails to explicitly disclose the vibrating strip to be a plastic coated aluminum strip, and the horn to include a blow tube.

However György; László teaches a horn shown in Fig. 1 to have a blow tube (sound hole 7) and a vibrating strip (membrane 4) of plastic foil (column 1 lines 61-62).

Since these references pertain to a horn, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the horn disclosed by LeBlanc et al. with providing the vibrating strip to include a plastic coated metal strip, and the horn to include a blow tube as taught by György; László. Doing so would provide a smaller, light horn which “is able to produce a considerable sound, when blown by the mouth” as taught by György; László (column 1 lines 39-42). These references fail to explicitly disclose the vibrating strip to be a plastic coated aluminum strip.

However it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the vibrating strip to be a plastic coated aluminum strip, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In *re Leshin*, 125 USPQ 416. Doing so would provide a horn having the acoustical characteristics of a metal vibrating strip while easily able to be “blown by the mouth” of a user as taught by György; László (column 1 lines 41-42).

**In reference to claim 2**, LeBlanc et al. modified by György; László discloses a horn as stated above, where the acoustic chamber (66) is shown in FIG. 1 of LeBlanc et al. to be partially formed by a cylindrical tube section (horn body 14), where an end of said cylindrical tube (14) abuts the vibrating strip (54) through horn body rim (56) and extends in an axial direction beyond the free edge of the partition to which the vibrating strip is fixed (column 2 lines 59-63).

**In reference to claim 3**, LeBlanc et al. modified by György; László discloses a horn as stated above, where the acoustic chamber (66) and the pressure chamber (62) are shown in FIG. 1 of LeBlanc et al. to form a one-piece body. This figure further shows a tubular and cylindrical area (horn body 14) to configure the acoustic chamber (66), and a cap-shaped area to configure the pressure chamber (62). Said cap-shaped area is further shown to envelop the tubular and cylindrical area (14) and is coaxial with it.

**In reference to claim 4**, LeBlanc et al. modified by György; László discloses a horn as stated above, where the area of the body forming the acoustic chamber (66) is

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shown in FIG. 1 of LeBlanc et al. to have a section opposite to the pressure chamber (62) shaped like a bell-mouthed configuration, in a manner of a trumpet, divergent toward its free end.

**In reference to claim 7**, LeBlanc et al. modified by György; László discloses a horn as stated above, where an opening of the partition forming the pressure chamber (62) is shown in FIG. 1 of LeBlanc et al. to have a part of the surface of an edge grooved so as to favor the attachment of the vibrating strip (54) through clamping the back (26) (column 2 lines 59-60).

**In reference to claim 8**, LeBlanc et al. modified by György; László discloses a horn as stated above, where an opening of the partition forming the pressure chamber (62) is shown in FIG. 1 of LeBlanc et al. to have an extension (back 26) bent over the vibrating strip (54).

**In reference to claim 11**, LeBlanc et al. modified by György; László discloses a horn as stated above, where the cap is shown in FIG. 1 of LeBlanc et al. to be semi-spherical.

**In reference to claim 12**, LeBlanc et al. modified by György; László discloses a horn as stated above, where the cap is shown in FIG. 1 of LeBlanc et al. to have an interior that is semi-ellipsoidal.

**In reference to claim 13**, LeBlanc et al. modified by György; László discloses a horn as stated above, where a ring (5) is shown in Fig. 1 of György; László.

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over LeBlanc et al. (US 4,970,983) modified by György; László (US 5,460,116) as applied to claim 1

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above, further in view of Larkin et al. (US 5,860,743). LeBlanc et al. modified by György; László discloses a horn as stated above, but fails to explicitly disclose the use of ultrasonic welding to fix the vibrating strip.

However Larkin et al. teaches a flexible aluminum sheet covered with plastic, where a means of ultrasonic welding or sealing is used to secure (column 2 lines 46-50).

Given the teachings of Larkin et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the horn disclosed by LeBlanc et al. as modified by György; László with using a means of ultrasonic welding to fix the vibrating strip. Doing so would provide an easy and inexpensive method of securing the flexible metal strip, as taught by Larkin et al. (column 1 lines 39-41).

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over LeBlanc et al. (US 4,970,983) modified by György; László (US 5,460,116) as applied to claim 1 above, further in view of Piltz (US 4,913,306). LeBlanc et al. modified by György; László discloses a horn as stated above, but fails to explicitly disclose the use of heat sealing to fix the vibrating strip.

However Piltz teaches a flexible strip (membrane) made of plastic coated aluminum (column 3 lines 40-43) to be fixed by means of heat sealing (column 1 lines 60-63).

Given the teachings of Piltz, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the horn disclosed by LeBlanc et al.



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as modified by György; László with using a means of heat sealing to fix the vibrating strip. Doing so would provide a vibrating strip which "will be attached merely to the outside of the rim" as taught by Piltz (column 1 lines 40-45).

9. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over LeBlanc et al. (US 4,970,983) modified by György; László (US 5,460,116) as applied to claim 1 above, further in view of Belli (US 5,600,080).

**In reference to claim 9**, LeBlanc et al. modified by György; László discloses a horn as stated above, but fails to disclose a T-shaped part connected to blow tubes for removably coupling two bodies.

However Belli teaches a T-shaped part or mounting apparatus between two bodies or drums as shown in Fig. 4. Said T-shaped part is shown in Fig. 5 to be attached to a body through opening (26), and said bodies can be removed from said T-shaped part through adjusting screw (24).

Given the teachings of Belli, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the horn disclosed by LeBlanc et al. as modified by György; László with providing a T-shaped part connected to blow tube holes for removably coupling two bodies. Doing so would provide an apparatus to mount two bodies while allowing easy and quick removal as taught by Belli (column 2 lines 49-51).

**In reference to claim 10**, LeBlanc et al. modified by György; László and Belli discloses a horn having a T-shaped part as stated above. Belli further shows in Fig. 5

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said T-shaped part to have at least one hole for receiving mounting rod (28) and its respected screw.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER UHLIR whose telephone number is (571)270-3091. The examiner can normally be reached on Monday-Thursday 8:00am-6:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Benson can be reached on 571-272-2227.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CHRISTOPHER UHLIR/  
Examiner, Art Unit 2837  
April 14, 2009

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/Jeffrey Donels/

Primary Examiner, Art Unit 2837